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THE PEOPLES OF ASIA AND THEIR ENCOUNTER WITH TECHNICAL CIVILISATION

by

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THE PEOPLES OF ASIA AND THEIR ENCOUNTER WITH TECHNICAL CIVILISATION

by Professor Gerhard Rosenkranz

Hans Freyer, the eminent sociologist and historian, in his "Theory of the Present Age", drew attention to the "political energies" and the "movements of thought and religion" which have constantly created "spheres of power" in the history of mankind which have bridged over the "pluralism of the historical world". (1) As examples he quotes Hellenism, Mohammedanism and Christian missions.

> Through these movements "the isolated peoples and cultures were swept together or became dependent on one another. They became impregnated with a single culture. They were confronted by common tasks or placed under a common destiny. Roads were built or reopened which cut across the whole continent. Single spheres of influence, 'empires where the sun never set', were formed extending from the Mediterranean to the Indus, from Peking to Kiev, from the New World to the Holy Land, and finally all round the world".

Nevertheless "all the situations which arose in world history before the 19th century were universal only in a limited sense". It was not until the 19th century that really world-wide spheres of influence were established, that entitled us to call our present age the universal technical age of mankind.

> "It was not until the industrial revolution which began in the comparatively small Europe about 1800, that a situation seems to have arisen which turned not only continents or parts of continents, but the whole world, into one single sphere of power. This situation, which is now universal, was not created by migration, nor by a common religion, nor by the power of thought, but by the most external force possible - by a certain technique in producing goods and organising work. This situation, which began to spring up everywhere where it was accepted, contained more explosive force than any revolutionary idea, and more expansive energy than any imperialism. It represented progress itself, in the simple sense in which a chain-reaction represents sheer progress ... The universal situation is here, or else it is irrevocably on the way. The primitive peoples and characteristic half-cultures are dying out ... or forced back into backward districts ... The secondary system is becoming the law of life which dominates the whole world and subjects everyone to a common fate." (2)

The new way of life imposed by technical development, which Freyer describes as a "secondary system", has definite characteristics which stand clearly in contrast to the original form of human life.

> "This new way of life is not based on a social form which already existed. It does not establish an order which takes over the established rights of property, special rights of association and local liberties, thus guaranteeing them. It does not count on people who respond spontaneously to its demands, drawing on a basis which already exists within them and which they bring into the higher order, according to their position, rank and situation. This new way of life counts rather on people who are <u>forced</u> to adapt themselves to the system, not in theory but in actual fact. Man is really reduced to the minimum that is expected of him." (3)

Freyer does not see any forces which might prevent this new life-system from developing. He sees the same process taking place today as those universal movements which have already changed (if only to a limited extent) "the special national and local characteristics based on their individual historical heritage".

> "For a long time the nations and continents have been absorbing the new situation. The pluralism of the historical world has not disappeared, but it is obsolete. At every stage of historical development, down to the most primitive, the hard challenge is awakening forces: some of them adapt themselves immediately to the system; others oppose it; and others may possibly have it in them to be equal to it. The nations of the world with their population pressure, their labour potential, their urge for freedom, their ambition, and with many inherent faculties for adaptation, are streaming towards the opportunities and tasks opened up to them by the secondary system." (4)

It is our task to trace this process, to examine its course and its present features, to estimate the possibilities and prospects which it offers, in relation to a part of the world on which technical development has "encroached" - the people of Asia. What does the impact of technical development mean for them? And what tasks does this impose on Western Christendom?

Before we set about answering these questions, we need to clarify the meaning of the expression "the impact of technics". By "technics" we understand one possibility (not the only one) discovered by man in order with the aid of rational knowledge (particularly by means of mathematics and science) to influence and control his environment. In other words, technics assume that man is conscious of himself and of his own power, that he has emerged from the general creation in which he was hitherto incorporated, and that he now realises that he not only belongs to God but that the world belongs to him. Technics is rooted in a psycho-religious process, in man's awakening to consciousness of his own nature, which began about 1300 in the West and found expression in Petrarch's letter from Avignon on his ascent of Mont Ventoux, which had an important influence on the Renaissance. But the same letter, which is filled with jubilation about man's superiority to his environment, is also impregnated with horror at the danger of such an enterprise. At the moment of his triumph the poet drew the "Confessions" of St. Augustine from his coat-pocket and opened the book at random at the sentences about men losing themselves in their admiration of nature. Technics is therefore a product of the secularisation of the Western spirit. Technical progress has drawn

> "its deepest impulses came from the Christian faith, which simultaneously transcends this world and puts it to the test, devaluating it and at the same time sanctifying it. The history of the Western spirit worked for a thousand years, secularising this faith into reason and science, and transforming it into materialistic activity and asceticism". (5)

This is a second thing which helps to explain the expression "the impact of technics". For the peoples of Asia this impact came from outside, from the West; for the moment we need not consider the question, to what extent Asia welcomed this impact. From the historical point of view this impact is running at first along the two levels, characteristic of the rise and growth of technics in the West, which were by no means always effective when separated from one another. There is "the assembling of workers who were formerly independent under the roof of industry" and "the use of machines as a more efficient sub-

stitute for human muscles". (6) A third factor today is "the use of machines as a more efficient substitute for the human brain", (7) as their use is spreading from America via Europe to Asia.

Among the pioneers of technics in Europe Freyer mentions the "colonising monk", (8) and this is confirmed if we examine the history of Western civilisation. But in the history of Asia the monk has played a rôle which is no less important - the Buddhist monk who built roads and bridges, laid out irrigation projects and took infinite trouble and made endless sacrifices for every kind of colonisation. But his activity did not arouse the spirit from which technics sprang. Moreover among the Asian peoples there were many evidences of secularism, similar to those which led to the founding of technical civilisation and its conquest of the world in the West (especially in the Enlightenment of the 18th century); nor did Asia fail to make discoveries which may certainly be described as "technical discoveries". But this does not alter the fact that technics originated among the Western peoples, and not in Asia or any other part of the world. This fact is so exciting and so definite, that we may expect an examination of it to throw real light on our subject. In doing so we must not overlook the fact that claims have also been made by Asia to have contributed towards the technical civilisation of the West. In his essay, "How China won its Civilisation", Professor V.K. Ting of Peking in 1931 makes such a claim. He recognises "that modern industry developed in Europe" but then he continues:

> "It could never have developed without the cultural capital of the previous age, which is the common heritage of the Eurasian Continents, and to which China made a noble contribution. The scientific discoveries which made industrial civilisation possible could never have been made at all, if the powerful rival states had not enjoyed a long period of social peace, which was the outcome of colonisation. For emigration not only relieved the pressure of population; it also provided an opportunity for discontented elements like the Puritan Fathers to seek fresh fields. Moreover, heavy industry would not have developed so quickly without the "original capital" (as Karl Marx called it) which came from the colonial possessions and from foreign trade. In a certain sense, therefore, the Azteks and Incas who gave up their hoarded gold and silver, the inhabitants of North America who died out and so made room for the European colonists, the negro slaves who worked on the plantations, and all the Asian peoples who traded with Europe, made their contribution and have just as much right to claim the benefits of industrial civilisation as the proletariat of Europe. In the first decades of the 20th century the usual view was that all cultural progress was to be ascribed to the "Northern Race". This led directly to the world war. Today the inhabitants of the West have purified their attitude; they no longer suffer from a superiority complex. We will therefore free ourselves from such complexes too and regard our new environment without false pride, but with calm confidence; for it is not only our clear duty, but also our incontestable right to adjust the conditions created by industrial civilisation and its conquest of the world, to suit ourselves." (9)

That is what the Chinese think. Let us begin our examination of the subject by looking into China's attitude to technics.

Chuang-tse, the great disciple of Lao-tse in the 4th century B.C., tells a story about a draw-well. An old gardener is laboriously drawing water for his garden from a well. A disciple of K'ung-tse advises him to build a draw-well to make his work easier. The old man replies:

"I have heard from my teacher that, where there are ingenious contrivances, there are sure to be subtle doings; and that where there are subtle doings, there is sure to be a scheming mind. But, when there is a scheming mind in the breast, its pure simplicity is impaired. When this pure simplicity is impaired, the spirit becomes unsettled, and the unsettled spirit is not the proper residence of the Tâo. It is not that I do not know (the contrivance which you mention), but I should be ashamed to use it." (10)

Let us also consider Chuang-tse's parable of the unconscious:

"The Ruler of the Southern Ocean was Shû, the Ruler of the Northern Ocean Hû, and the Ruler of the Centre was Chaos. Shû and Hû were continually meeting in the land of Chaos, who treated them very well. They consulted together how they might repay his kindness, and said, 'Men all have seven orifices for the purpose of seeing, hearing, eating, and breathing, while this (poor) Ruler alone has not one. Let us try and make them for him'. Accordingly they dug one orifice in him every day; and at the end of seven days Chaos died." (11)

These two parables of Chuang-tse and many others illustrate his tenets, which are opposed to any use of implements or machines, including weapons, in order to increase human welfare. "The hammer and gouge did their work. The world fell into great disorder, and presented the appearance of a jagged mountain ridge. The crime to which all was due was the meddling with and disturbing of men's minds." (12) So writes Chuang-tse. The salvation of man consists in his adapting himself in "simplicity without a name" to the cosmic order, the Tâo. (13) The use of tools and instruments, and the pursuit of knowledge, technics and science, are not salutary, because they prevent man from adapting himself to the Tâo. They arouse in him illusions, desires, discontent and thereby plunge his heart and his world into unrest and disorder, which are contary to the eternal peace and order of the universe. They force man to crave for knowledge, to constant "busy-ness", and make it impossible for him to "value the nursing-mother (the Tâo)". (14) That is why Tâoist wise men monotonously repeat: "Desist from 'active doing'!" (15) The Tâo "in its regular course does nothing (for the sake of doing it), and so there is nothing which it does not do ... With no desire, at rest and still, all things go right as of their will"! (16)

Lao-tse's insistance on man's "returning to the roots", returning to his own nature and thereby turning to the Tâo, stands in complete, uncompromising opposition to the ideal of his young contemporary, K'ung-tse. K'ung-tse sees the salvation of man in his harmony with the cosmic order - harmony between man's own Tâo and the Tâo of earth and heaven. But unlike Lao-tse, he does not regard human nature as something perfect, but as something which requires training, and which can be improved. Morals are the creative force which preserve man from deviating from human nature, or which restore him to human nature again, by placing him on earth in social orders which correspond to the cosmic human whole. K'ung-tse does not regard morals (as Lao-tse wrongly does) as an external restriction upon human nature; morals "must be a strong spiritual force, binding and ordering human order, in such a way that nature is not violated, but voluntarily places itself under the guidance of the spiritual". (17) The highest morality is expressed in perfect beauty; true morality includes nothing, and does nothing, "what is contrary to propriety". (18) The identification between the inherent nature and the form of things is thereby raised to a principle, which has moulded handwork, tools and objects of daily use in

China for thousands of years. But although K'ung-tse praises the steadiness of manual work as a model for the seeker after truth, (19) in the Confucian hierarchy the manual worker occupied the third place, lower than that of the scholar and the farmer, but higher than that of the shopkeeper (whose work was the least productive).

The Chinese are by no means lacking in "technical ability". Their skill in using natural resources such as bamboo, wood and hemp in ways which conform to all the rules of mechanics, and their artistic ability in turning natural products into paper, porcelain and lacquer, has always filled Western people with the highest admiration. Nor have the Chinese failed to make technical discoveries from the earliest times; a machineless aeroplane was invented there about 350 B.C., a submarine about 200 B.C., and a little later on a torpedo and an automatically-controlled car. But they were accidental discoveries; there was no incentive to support them theoretically or to develop them further. They were often regarded as profanations of the mythical-magical order of being and punished accordingly - as in the case of an automatic man constructed in the 4th century B.C. They were, on the other hand however, often used in the service of that order: gunpowder (which was discovered early) was used to ward off evil spirits; the compass (discovered about 200 B.C.) was used in geomancy to determine the luck of a given place. "The fact that the Chinese and Japanese have not developed science and technics", says Lily Abegg, "has really nothing to do with 'lack of ability', but is due essentially to their convictions about life and the universe." (20) The Chinese never violated their partnership with heaven and earth by their "technical ability"; but they made full use of every opportunity offered to them within the limits of that partnership. "The tern with Heaven and Earth". (21) They modified nature sometimes, for instance when they built waterways, canals, dykes, walls, roads, bridges or quarries; but they never violated nature; they built into nature in such a way that their constructions seemed like an organic part of nature. Cautiously and with endless patience they perfected what was already present in nature. This is expressed in Chuang-tse's parable of the cook:

> A cook was praised by his master for his skill in cutting up an ox. He replied: "What your servant loves is the method of the Tâo, something in advance of any art. When I first began to cut up an ox, I saw nothing but the (entire) carcass. After three years I ceased to see it as a whole. Now I deal with it in a spirit-like manner, and do not look at it with my eyes. The use of my senses is discarded, and my spirit acts as it wills. Observing the natural lines, (my knife) slips through the great crevices and slides through the great cavities, taking advantage of the facilities thus presented. My art avoids the membranous ligatures, and much more the great bones. A good cook changes his knife every year; (it may have been injured) in cutting; an ordinary cook changes his every month; (it may have been) broken. Now my knife has been in use for nineteen years; it has cut up several thousand oxen, and yet its edge is as sharp as if it had newly come from the whetstone." (22)

As is well known, the teachings of K'ung-tse and Lao-tse have had a strong influence on Japan and helped to form its spirit. Genchi Kato, the well-known Shinto Professor, says that to be Japanese is equivalent to being a Shintoist - just as the sum of the angles in any triangle is equivalent to two right-angles. Kato regards Shinto, the national religion of Japan, as "something so characteristic of the Japanese spirit, something so inextricably tied up with it, that no opposing religious force from outside can suppress it or eradicate it". (23) Within the Kami-fellowship of Shinto, which includes everything in heaven

and earth, there are two trends, which are still characteristic of Shintoism: its worship of nature and all natural forces, and its worship of divine people. These human Kami (deities) were often old Tenno, or also men who had rendered military or cultural service to the divine country of Japan. None of them gave any stimulus to the external domination of nature, which led in the West to the rise of technics. One gets the impression that the Japanese spirit - which is certainly not as uncreative as Western people often believe - has never felt the need to control the external world in this way. In Japan we also come up against a primaeval order of being in which technics have no place.

The same applies to India, which basically differs from Eastern Asia in that it regards everything spiritual as divorced from matter (disembodied) and has done so since ancient times.

> "In India the individual is always part of the whole. Man is woven into the cosmic network of the universe, and is subject to the same biological laws of growth and decay as all other forms. He does not differ either biologically or in intrinsic value from all the other expressions of the universe. In the tropical conditions which prevail in India, the only standard of value is the life-force which is manifested not only in man but also in powerful animals and fruitful vegetation. But what man's spirit gains in spiritual force he has to pay for in physical strength; for he is subject to the mysterious law of a cosmic balance of power, so that an increase in one direction almost always results in a corresponding decrease in another. Over-development of one faculty therefore inevitably causes the crippling of other faculties." (24)

The domination and control of nature, which is essential for technics, would therefore not only disturb the balance of the cosmic forces, but would completely destroy it, and no orthodox Hindu could even consider any man doing such a thing.

Let us now look at the two non-Christian world religions, of which Buddhism has become a dominating force in Eastern and Central Asia, while Islam is also important in some parts of Asia.

> "During the course of history Buddhism has been a living proof, that the absolute denial of cultural values does not prevent religion from exerting an influence on culture. That must be traced especially to the power of the institutional element in Buddhism, and particularly to the great central institution of monasticism which spreads religious culture and also preserves the spiritual tradition." (25)

But Buddhist teaching is centred so much in insistance on complete withdrawal from the world, that this explains the decay of some flourishing Buddhist cultures, for instance in India, China and Ceylon. But where Buddhist cultures have continued for centuries, as in Japan, a deeper examination reveals that their importance is restricted by the malign circle of reincarnations. Where the human urge for form has created something resembling "technical" requisites, even in Buddhism, such as bells and prayer-wheels, they have received cultic functions.

If we enquire into the attitude of Islam to technics, we have to take into account its geographical and intellectual nearness to the West, especially to the world of Greek thought. It is a well-known fact that Islam had a strong influence on the West during the 11th and 12th centuries. This not only affected Greek, Iranian and Indian knowledge; its influence was also felt in:

"the enrichment of science and technics by independent achievements; in astronomy greater precision was reached, and in physics the simple quantative attempt was introduced. Masterly achievements were made in the realm of technics, in the building of apparatus ... about 1200," although the Moslems were the disciples of the Greeks, Philo and Hero, in this sphere also. (26)

Islam's interest in scientific and technical activity finally petered out in the 13th century. This process was furthered by al-Ghazzali (+1111) the "Renewer of Religion". He gave Islam its new inner form at a time when it was menaced by decay owing to spiritual influences from outside; he gave it its final order of being; owing to the believer's complete commitment to Allah, the Creator of the world, any attempt to control the world scientifically and technically was an encroachment on the omnipotence of Allah. (27)

In this connection a quotation may be given from the Turkish daily paper "Junhuriyet" of September 29th 1937:

"The Moslem's abhorrence, not of pictures and symbols as such, but only of the worship of pictures and images, is the lofty expression of the noble desire to replace dead, lifeless symbols of God on earth by pure values of the infinite and the invisible. For instance, what is the significance of the Cross? Jesus was crucified. The idea of God's incarnation in human form, (which produced the materialistic culture derived from Christianity) had to give way gradually to the idea of the divinity of man. It looks as if the idea that God did not create man, but that man created God, springs from the anthropomorphic conception of a God who took human form. Jesus, the shadow of this God on earth, has not yet ceased to perform miracles: the telephone, the radio, the motor-car, are the practical fruits of a religion which is directed towards the worship of lifeless objects. The tendency to 'put life into matter', which is despised by the Islamic faith, makes it possible for Christian culture to go on performing miracles, because it sets lifeless matter in motion, thus bringing it to life." (28)

Nevertheless such dogmatic rejections of technics in opposition to Christianity, which may be heard even in a modern state like Turkey today, do not prevent Islam from making use of every available technical device in facilitating the pilgrimage to Mecca and arranging a pleasant stay for the pilgrims in the holy city. The Muezzin which calls the Moslem to prayer uses the loudspeaker; and the holy water from the Zem-Zem well, close to the Kaaba, is pumped up into taps by electricity.

This terminates our examination of the main religions of Asia, to see whether they contain any traces of a technical development similar to that found in the West. We must make it clear that in doing so we have kept in mind the Asian way of life, which possesses both its cultic form and its norm in the different religions. Among the Asian peoples we found no trace of any such technical development. On the contrary, we found among them an order of being (which we called mythical-magical) which dates from earliest antiquity, and which excludes any such approach. If this order of being were examined more thoroughly we should discover that in it magic plays the rôle which technics plays in the secularised world - i.e. the rôle of comprehending man's environment and dealing with its opposition. But the magician in the East is marked by the very fact that:

"he has looked more deeply than most men into the weft of forces in the universe and has perceived the rules which enable one to control them - if one has learnt to renounce one's Ego, which would be in terrible danger from these forces if they were released." (29)

The writings of the philosopher Mê-tse, who was born in the 5th century B.C. when K'ung-tse died, contained suggestions for logical and systematic thought; they are the outcome of the same spirit which produced science and technics in the West. These writings are valued by Chinese people (especially since social ideas grew up in their country) and also by Western people.

But a close examination shows that an interpretation influenced by Western ways of thoughts reads more into Mê-tse's writings than is permissible. Moreover Mê-tse's ideas only had a temporary and limited influence in China. (30)

Finally we must clarify the fact that in our discussion of technics and their relation to the religions of Asia, we have spoken several times of cultures influenced by religion.

"It is clear that a common form of life necessitates a common philosophy, common standards of conduct and common values. Consequently a culture is a spiritual community which owes its unity far more to the common faith and common thought-forms than to any physical similarities. Today it is easy for modern man, who lives in a highly secularised culture, to interpret this common philosophy as something purely secular, which is not necessarily connected at all with religious faith. But in the past this was not so." (31)

And it has not yet become so among the peoples of Asia. Within the organic framework of their mythical-magic order of being, there is no room for technics as an independent attempt made by man to control his environment.

"Here a different way of controlling the external world was found - a way better suited to the reticent, passive spirit of Eastern Asia: the human spirit's will to dominate is directed to man's own inner life and to society. Man transforms and shapes this world of his in accordance with his need for order. After that man's will can be directed towards his whole environment, but this environment is formed here not primarily by the hand (by means of technical magic) but by the eye. In East Asia man projects the spiritually-abstract, the formal, the mathematical shape of his own ordered inner consciousness on to his external environment." (32)

What has been the nature of the impact between this world and technics, for which the Asian world has no disposition in itself? This impact has occurred in two ways. In both cases the decisive factor was the fact that the Asians:

"started from the false assumption that technics were something which could be procured once and for all. It never occurred to them that technics might continue to progress and develop still further .... It gradually began to dawn upon them that the crucial factor was not so much the discoveries and inventions made by the white race, but rather the spirit which underlay those discoveries." (33)

In China people thought for a time that if the old order were strengthened or renewed, the encroachment of Western technics could be prevented. "Many of our Chinese people undoubtedly estimate Western science too highly; they even go so far as to assert that there is no longer any renewing force in our way of government or in our customs. But we can no longer regard such cynics as human beings." Thus wrote the Viceroy Chang Chih-tung as late as 1898 in his famous book "Learn!" (34) But they underestimated the pressure of the new age and failed to perceive (where they inclined to compromise) that it was a law unto itself. A wave of protest passed over China, when Western engineers began to build railways, and without any regard for the Tâo tore up the ground and pierced mountains. The first railway was built secretly and was then bought up by the government and destroyed, because it threatened to put an end to the former means of communication, to deprive all the drivers and carriers of their livelihood, and hence to disturb the Tâo of human society. But although measures of this kind were taken against technical progress, it was no use. The opposition then died down quickly and gave way to that first form of acceptance which consisted in expecting the old order (which had absorbed so many external influences in the past) to absorb technics and make them innocuous, thus counteracting the danger that life would become rationalised and mechanised. This process was still going on when Communism seized control in China. The process was accelerated by the fact that all the technical expressions connected with technics, and the sciences underlying them, had to be translated into Chinese, or that entirely fresh signs had to be created for them. We need only recall that the language of China is strongly impregnated with its mythical-magical order, and that from time immemorial China has accorded magic powers to "the rectification of names" for the understanding and rectification of reality; we shall then realise the deep significance of these names, the translation of which was an amazing intellectual achievement. A recent event is typical of the stability of the old order. In 1941 some American bankers set up the most modern machinery in Northern Shantung, in order to exploit the enormous coal-deposits there. The outbreak of the Pacific war prevented then from using this machinery. When the American engineers and technicians wanted to begin setting up the machinery at the end of 1945, they found all the cases broken open; whatever machinery was usable in manual trades had been dismantled and had found its way into the hands of the locksmiths, bakers, brewers, and even of the potato-pancake-makers at the street-corners. The Americans called out "Thieves!" The Chinese replied: "If things are lying about unused, when other people could make good use of them, it is not theft to take them." The Americans explained excitedly that it would not pay to employ human labour to hew the coal, and that modern machinery was essential for obtaining and transporting coal. They also talked about China's tasks in world industry and trade. The Chinese refuted these arguments: "Hundreds of thousands of coolies have been living here and working for centuries within the family system of collective work, and they all have enough to eat and are content. Why these innovations?" (35)

Japan put up no opposition to its technical development; it accepted it almost feverishly in order to keep pace with the West. Here also the innovations were absorbed into the old order, so that the people as a whole were seldom affected by the change, and never deeply affected. When people began to bore for oil, little Shinto shrines immediately appeared for "the Oil God". When sulphur was found, sanctuaries were erected to the Sulphur Kami. In February 1914 a modern electric power-station was dedicated to the Fox God, "so that the great God Inari of Takahaschi might be worshipped there as well as in his main temple". (36) One of the many Shinto sects which sprang up at the end of the war is dedicated to "the religion of the electricity-culture";

it chose Thomas Edison as its God, (37) just as Robert Koch was worshipped as Kami before the first world war in a shrine in the courtyard of the Medico-Historical Institute in Tokyo. Buddhism must not be left out of the picture either. In 1938 on the staircase of an underground railway station in Tokyo I saw a big notice inviting people to attend a mass for the souls of broken sewing-needles and pins in a neighbouring Buddhist temple. It therefore seems doubtful whether - as Christopher Dawson thinks - technical civilisation can be taken over "wholesale" owing to "its religious neutrality or complete lack of religion ... by any state which is able to train specialists and to buy machines and equipment, as Japan has done during the last sixty years". (38)

In his study of the Japanese spirit, "Japan's smile is different", which is written with excellent powers of observation and has recently appeared in German translation, Mirko Ardemagni describes the Japanese system of work as a system of "harmonious cooperation between people of goodwill". He continues:

> "The output which the Japanese system aimed at producing was far greater than what we could have produced with the same technical equipment. This system aroused a passion for work in the new generations, it preserved and renewed what was old, it gave everyone personal satisfaction and excluded social unrest almost completely. This system was an instinctive protection against too-hasty liquidation of old methods. The majority of the workers had not changed their way of life when the demand arose on every side for machine-made goods. There was a demand for ball-bearings for dynamos. Instead of building a gigantic factory for the manufacture of ball-bearings, which would have been possible only if the capitalistic process were far advanced, thousands of workers learned how to make ball-bearings under the instructions of a small staff; this enabled them to remain in their small workshops ... thus ensuring continuity in organisation and in customs ... During the last few decades a proletariat on Western lines has been formed, but the new system did not exclude the old one; one had a moderating influence on the other and adapted it to an order which was inwardly opposed to it." (39)

The following evidence is given in an article by Lily Abegg entitled "Japan's second industrial revolution" published in the "Frankfurter Allgemeine Zeitung" of January 7th, 1956 (we omit the examples which she quotes):

> "The technical capacities of the Japanese are not adequate, as is proved today, to feed a constantly growing population on Japan's narrow islands. The Japanese have always taken over their machines and industries from the West and have developed very few processes of their own, based on Japanese conditions ... It is therefore hardly surprising that technical standards in Japan fell considerably even during the war-years, when Japan was cut off from abroad. It therefore now has to catch up on the technical progress made meanwhile in the West ... Sometimes the Japanese make mistakes when they are setting up technical equipment, unless the instructions give the most minute details ... Japan will probably gradually catch up on the start gained by the Western nations - but it will not outstrip them. Japan cannot be described as 'backward', but it is dependent. Today it possesses some of the most modern equipment, set up with foreign help (as before the war) or on a foreign model. But when this new equipment gets old, the Japanese will not build new machinery on their own initiative, if they should be cut off from the West which is constantly making new discoveries and fresh progress."

India too "has made use of Western inventions, where geographical conditions permitted, but they have had no influence on its traditional attitude of mind. If the modern Hindu travels by train and car, this does not imply that he has abandoned his innate devotion to his old religion. And when the masses stream out of the trains which they use to shorten their long pilgrimages, they kneel before the altars of their native gods with the same prayers and rites as they have always done. If the orthodox Hindu accepts a newly-discovered natural force, such as electricity, he immediately regards it as a new deity which he readily absorbs into his pantheon - just as in the Middle Ages people worshipped the peculiar properties of quicksilver. In accordance with its ancient faith in the holy variety of nature, which does not admit any of its expressions to take precedence of any other expression, India can extend its pantheon to an unlimited extent." (40)

A modern Indian, K.M. Munshi, Governor of the State in Uttar Pradesch, expresses this as follows:

"Although we are intent on solving the problems in a way which corresponds to the needs of a technical age, nevertheless our intellectuals (with the exception of a very small group) have never aimed at breaking the continuity of our historical development. On the contrary, they have done everything to keep alive the sources of energy derived from the past. We are glad to adopt things from other countries if they are suited to our nature, but we do not sell ourselves and we want to remain Indians." (41)

On his visit to the Pope in July 1955, President Nehru emphatically declared that he was a pagan who wanted to retain his own gods; he praised the ancient Athenians who set up an altar "to the unknown god". He said, his view was the pagan one: live and let live. After his return to India he said that America and Russia were very similar in many respects, especially in their infatuation for technical development and for speed.

Is the adoption of Western technical achievements by absorbing them into the mythical-magical order of the East a promising solution? It has certainly succeeded in mitigating the destructive effects of technics and of "the spirit behind technics". Richard Wilhelm would go still further in his answer. In his opinion

"a machine-culture was conceivable in the spirit of Lao-tse, in which the machines were treated as a matter of course, just as agricultural implements were accepted in ancient times; in this civilisation people could live in peace and security, quietly controlling the machines, and not enslaved by them". And "it was one of Lao-tse's convictions that the ideal of one age should never be taken as the standard for other ages; every age must find its own balance, which is suited to it." (42)

Lily Abegg is more reserved in her judgment about the future development of technics in Eastern Asia; but in speaking of Mê-tse she is of the opinion "that a vein similar to that in the West may slumber also in the Chinese and Japanese". (43) She also draws attention to "the many genuine qualities of the East Asian peoples ... which were suppressed in ancient times, and are still suppressed to some extent today" and believes that these qualities "would certainly enable the peoples of East Asia to achieve great things, if they were directed into the right channels." (44)

After all we have learnt about the old order of the Asian peoples, and about the influence which that old order still has upon Eastern people, it seems quite impossible for technics to be absorbed into the old order. The dynamic of that old order (which is directed towards man's inner life and thence to life in community is diametrically opposed to the Western urge to gain control of the external world with the aid of technics. The daily life of Asia presents countless examples of how repressed and helpless the man who is bound to the old order feels when confronted by technics. These examples are so strange that they make Western people smile. (45) The impression that this applies less in Japan than in China is based on a misconception; it is less apparent in the Japanese, because his consciousness (which is rooted in mythology) of his obligations toward the Tenno impels him, often with intense strain, to carry out technical tasks to which he is not really equal. (46) In the war with Japan, China was undoubtedly inferior technically. But Japan's technical superiority was only relative. This was shown by Japan's defeat in 1945, which Japan at once recognised as its own failure to compete with Western technics.

If technics cannot be absorbed into the mythical-magical order of being of the Asian peoples, then can they be absorbed apart from it? During the last century innumerable young Asians (often too young) have constantly pursued this second possibility, especially when impact with the West showed up the technical failure of their peoples. Proudly, even contemptuously, they cast off the old ties and plunged feverishly into the study of Western science and technics. Many of them learnt scientific methods and technical devices admirably and are now proving their worth as scientists, doctors and engineers who understand their job. Many of them can never free themselves entirely from their inherited contempt for the natural sciences, and when they return home from Western universities they submit once more to the laws of the old order, at the same time modifying it. But their studies send many of them into a frenzy of freedom; they do just as they please (as they imagine the Western students do, without knowing anything about the traditions of the West nor realising the unwritten laws which normally limit the freedom of Western people). Their misconception of Western freedom is deplorable. This way does not lead the Eastern peoples to master and adapt technics to their own needs either. At the best, it only makes them realise that technics are useful, and for some reasons essential. (47) It also helps to explain the difficulties encountered by the Chinese People's Republic in carrying out their extensive plans for technical development.

> "The lack of skilled technicians in China is serious. The training of engineers now has the very first priority in Chinese education ... The Chinese have also made extensive use of the help of technical advisers from Russia. In spite of this, the first Five Year Plan (starting in 1953) will be impeded by the fact that industrial production only reaches a low average, and there are difficulties in supplying first-class precision-instruments." (48)

On the other hand the fact must not be overlooked that the Marxist faith in technics, which aims at the omnipotence of man in communist China, has released a stronger will to shape the future than China's age-worn religions can now do.

Hans Freyer considers how to overcome the dangers which threaten a technical developed world, i.e. a world to which everything appears possible including the consummation of history. He is thinking of the mobilisation of human qualities by China and India with their unused forces and qualities,

which might be able to cope with the "secondary system". (49) Here the old hope also enters in, that the introversion of the East and the extroversion of the West might some day unite for the good of humanity. Such considerations are urgent not only because the triumphal march of technics through Asia cannot be stemmed, but also because the technical achievements in the West (which not long ago were praised as the height of progress and aroused paradisian utopias) are threatening to rebound and to become a menace to the very basis of human life. We know the apocalyptic visions of a future dominated by robots. They have been described by Robert Jungk, Hans Freyer and many others. (50) They are still visions, but prophetic visions. We cannot console ourselves by saying that the process of depersonalisation has not gone so far, even in America, that no scope remains for individual decisions. The very fact that we feel the necessity to console ourselves in this way is sufficient indication that the danger exists. The West has fallen sick because of technics; Western man has been sacrificed to technical progress. Filled with the proud conviction that there are no further limits to his will and his powers, he is losing himself, overcome by material things, by his environment and by the ruthless urge to live just as he pleases on a purely material and natural plane. The freedom for which he struggled throughout history - the freedom of God's children everywhere - is threatening to turn into licentiousness and self-will. Having lost his soul, Western man is at the mercy of the spectre of becoming depersonalised. With technics, the spirit which produced them is marching through the world in a degenerate form. The only hope of a change lies in the fact that the West does realise what a menace they present. No help is to be expected from outside, because the people of Asia are in a different position; their desire to control the world is directed inwards, instead of outwards. Eastern people cannot get over a feeling of restraint with regard to technics. But if they free themselves from their old order and devote themselves avidly to technical progress, they are left floundering in a vacuum in which technics cannot offer them anything to hold on to. The cry, "Back to the Roots!" in the East always includes turning away from the world and thereby turning away from technics.

In the West the cry is "Metanoeite! Repent!" This means that the decision whether to accept technics or not must be taken in relation to God, and not in relation to the world. If the West can achieve this change of outlook, if it tries to find the right attitude to a technically developed world in relation to God, then Western man will be able to emerge from his dilemma: the attempt to escape from the world on the one hand, and depersonalisation on the other. Man, who is rooted in God, will regain the liberty which only God can bestow. He will regard technics in a new light as a "creation of God" and will perceive that "everything created by God is good and nothing is evil if it is accepted in a spirit of gratitude". (51) Man will then understand also that the only way in which God wishes technics to be used is in the service of the world, that His will may be done on earth. He will realise what is distorted and contrary to God in the world, and in the culture and spirit behind technics. He will realise that technical progress is not an aim in itself, that its aim is not the Utopia of a future Kingdom of Mankind created by man's own efforts, and that the danger inherent in it is not a "secondary system"; the purpose of technical progress is the Kingdom of God, and the only danger is that man may fail to inherit God's Kingdom. In this tension between selfless devotion to technics in self-sacrificing service, and conscious separation from technics for conscience's sake, lies the Christian's struggle and his glory, his danger and his freedom. This has been expressed by Uchimura, the Japanese: "Without Christianity, Western civilisation is more harmful and more of a menace to the human race than any other form of life." (52) The origin of the freedom which enabled the West to achieve technical progress lies in the Christian Gospel. And the Gospel also contains the norms of man's relation to technics.

It is the Christian Gospel also which frees Asian peoples from their mythical-magic order of being, and thus enables them to achieve (in God) the power to apply technics to the service of the world. They may be able "to arouse millions of workers to strive for human qualities". (53) In their cosmic order they may possess social forces which destroy the disruptive effects of technics. That is not certain. But it is certain that they are accepting the call to freedom in which each serves his neighbour through love. (54) This is a revolutionary process. It strikes Eastern people at the very roots of their existence. But it does not hurl an old order into irrevocable chaos; nor does it delude the peoples of Asia with the ideal of a personality who asserts the right to develop like a Titan, or who relies with bourgeois self-sufficiency on human powers - an ideal which long ago revealed itself as a delusion in the West. In this revolutionary process God is creating Eastern man anew, so that he may be strong enough to withstand the pressure of his environment.

World Christendom is therefore faced by an enormous task, both in the sick Western world, and in the awakening Eastern world. Many of the things which Christians did in the past, with the best intentions, when they combined "the spread of a beneficial civilisation" with preaching the Gospel, has proved not only a mistake but a sin. But if Christians admit this before God, He will entrust them with a fresh task. That is the final answer to all the questions raised by our subject: we must be ready to do everything to ensure that the Asian peoples' unavoidable encounter with technical progress shall become a form of God's service in the world.

* * *

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